



# Best Management Practices for Construction and Development Projects Swamp Darter *Etheostoma fusiforme*

**Common name** • Swamp Darter  
**Scientific name** • *Etheostoma fusiforme*  
**Federal status** • None  
**State status** • Endangered

## Purpose and Use

The information in this document is to be used to help avoid and minimize species impacts due to construction practices. It is not intended to be used as a guide to manage habitat for a given species. If that is the goal, please contact the Department of Conservation for habitat management information. Because every project and location differs, following the recommendations within this document does not ensure that impacts will not occur to the species and additional information might be required in certain instances. Following the recommendations within this document does not complete Endangered Species Act consultation that may be necessary for species listed under the federal Endangered Species Act; please contact the U.S. Fish and Wildlife Service for more information.

## Ecology

Swamp Darters are found in swamps, bayous and oxbow lakes along the Atlantic and Gulf coasts of the United States and sporadically north along the Mississippi River to southeastern Missouri and Kentucky. In Missouri, they are limited to just a few locations possessing relatively undisturbed remnants of cypress swamp. Swamp Darters prefer bodies of water that have no current, a substrate of mud and detritus, and dense aquatic vegetation. Their diet consists of microcrustaceans, midge and mosquito larvae, and amphipods. Spawning likely occurs during May. Adults reach a maximum length of about 2.3 inches.

## Reason for Decline

The Swamp Darter probably was never common or widespread in Missouri. However, the small number of waterbodies occupied by the species should be protected from alteration. Conversion of wetlands in its current range to agricultural fields or urban areas reduces potential habitat.

## Specific Recommendations

Swamp Darters have a distinctive requirement for sluggish streams and water bodies that includes swamps, bogs, and abandoned stream channels. Within these habitats, the species seems to tolerate a wide-range of temperatures, water coloration, pH, and low oxygen.

- Projects should not occur below current water levels between May 15 and June 15 to allow adequate time for reproduction.
- Limit clearing of vegetation, including both standing and downed timber, to that which is absolutely necessary for construction purposes.
- Riparian areas located down slope of construction zones should be physically screened with sediment controls, such as silt fences or filter strips. Erosion and sediment controls should be implemented and monitored for the duration of the project.
- Avoid installation of permanent stream crossings. If unavoidable, temporary crossings should be employed. Temporary crossings should not restrict or interrupt natural stream flow. If temporary inchannel fill is necessary, culverts of sufficient size should be employed to avoid water impoundment and allow for fish and other aquatic passage.
- Draining or reducing known wetland habitat should be avoided within the range of the Swamp Darter.

## General Recommendations

Refer to Management Recommendations for Construction Projects Affecting Missouri Streams and Rivers and Management Recommendations for Construction Projects Affecting Missouri Wetlands.

If your project involves the use of Federal Highway Administration transportation funds, these recommendations may not fulfill all contract requirements. Please contact the Missouri Department of Transportation at 573-526-4778 or [www.modot.mo.gov/ehp/index.htm](http://www.modot.mo.gov/ehp/index.htm) for additional information on recommendations.

## Information Contacts

For further information regarding regulations for development in rivers, streams and wetlands, contact:

For species information:

[Missouri Department of Conservation](http://www.mdc.mo.gov)  
Resource Science Division  
P.O. Box 180  
2901 W. Truman Blvd  
Jefferson City, MO 65102-0180  
Telephone: 573/751-4115

For species information and Endangered Species Act Coordination:

[U.S. Fish and Wildlife Service](http://www.fws.gov)  
Ecological Services

101 Park Deville Drive, Suite A  
Columbia, MO 65203-0007  
Telephone: 573/234-2132

For Clean Water Act Coordination:

[Missouri Department of Natural Resources](#)

Water Protection Program  
P.O. Box 176  
Jefferson City, MO 65102-0176  
Telephone: 573/751-1300, 800/361-4827

[U.S. Army Corps of Engineers](#)

Regulatory Branch  
700 Federal Building  
Kansas City, MO 64106-2896  
Telephone: 816/983-3990

[U.S. Environmental Protection Agency](#)

Water, Wetlands, and Pesticides Division  
901 North 5th Street  
Kansas City, KS 66101  
Telephone: 913/551-7307

**Disclaimer**

These Best Management Practices were prepared by the Missouri Department of Conservation with assistance from state and federal agencies, contractors and others to provide guidance to those people who wish to voluntarily act to protect wildlife and habitat. Compliance with these Best Management Practices is not required by the Missouri wildlife and forestry law nor by any regulation of the Missouri Conservation Commission. Other federal laws such as the Clean Water Act and the Endangered Species Act, and state or local laws need to be considered for construction and development projects, and require permits and/or consultation with the appropriate agency. Following the recommendations provided in this document will help reduce and avoid project impacts to the species, but impacts may still occur. Please contact the appropriate agency for further coordination and to complete compliance requirements.